El malware nuestro de cada día

(short version)

Lucas González • 05.08.2020

No estás solo

REVil ransomware infected 18,000 computers at Telecom Argentina

July 20, 2020 By Pierluigi Paganini

Another telco company was hit by a ransomware, roughly 18,000 computers belonging to Telecom Argentina were infected over the weekend.

Telefonica, other Spanish firms hit in "ransomware" attack

4 MIN READ

MADRID (Reuters) - Spain said on Friday a large number of companies, including telecommunications giant Telefonica (TEF.MC), had been infected with malicious software known as "ransomware" which locks up computers and demands ransoms.

CSIRT-NQN Retweeted

CSIRT-CV @CSIRTCV · Jan 24

Expuestos 250 millones de registros de #Microsoft. Una brecha de seguridad afecta a los registros de asistencia al cliente de Microsoft. La causa, una errónea configuración en las reglas de seguridad de un servidor.

Más detalles: ow.ly/X54I30qbXre

News

Garmin confirms ransomware cyberattack shut down services

By Zoe Christen Jones

July 27, 2020

Áreas Específicas

amazon.jobs/en/business_categories/amazon-web-services

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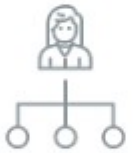


Program Management

Sales

Security Engineer

Software Development Engineer

Solutions Architect

Support Engineer

System Development Engineer

Áreas Específicas

Security Engineer- AWS Fraud

Job ID: 968185 | Amazon Web Services, Inc.

Sr. Security Engineer- AWS Fraud Prevention

Job ID: 968184 | Amazon Web Services, Inc.

Security Engineer, Elastic Compute Cloud (EC2)

Job ID: 960730 | Amazon Dev Center U.S., Inc.

Senior Security Engineer - Hardware

Job ID: 979735 | Amazon.com Services LLC

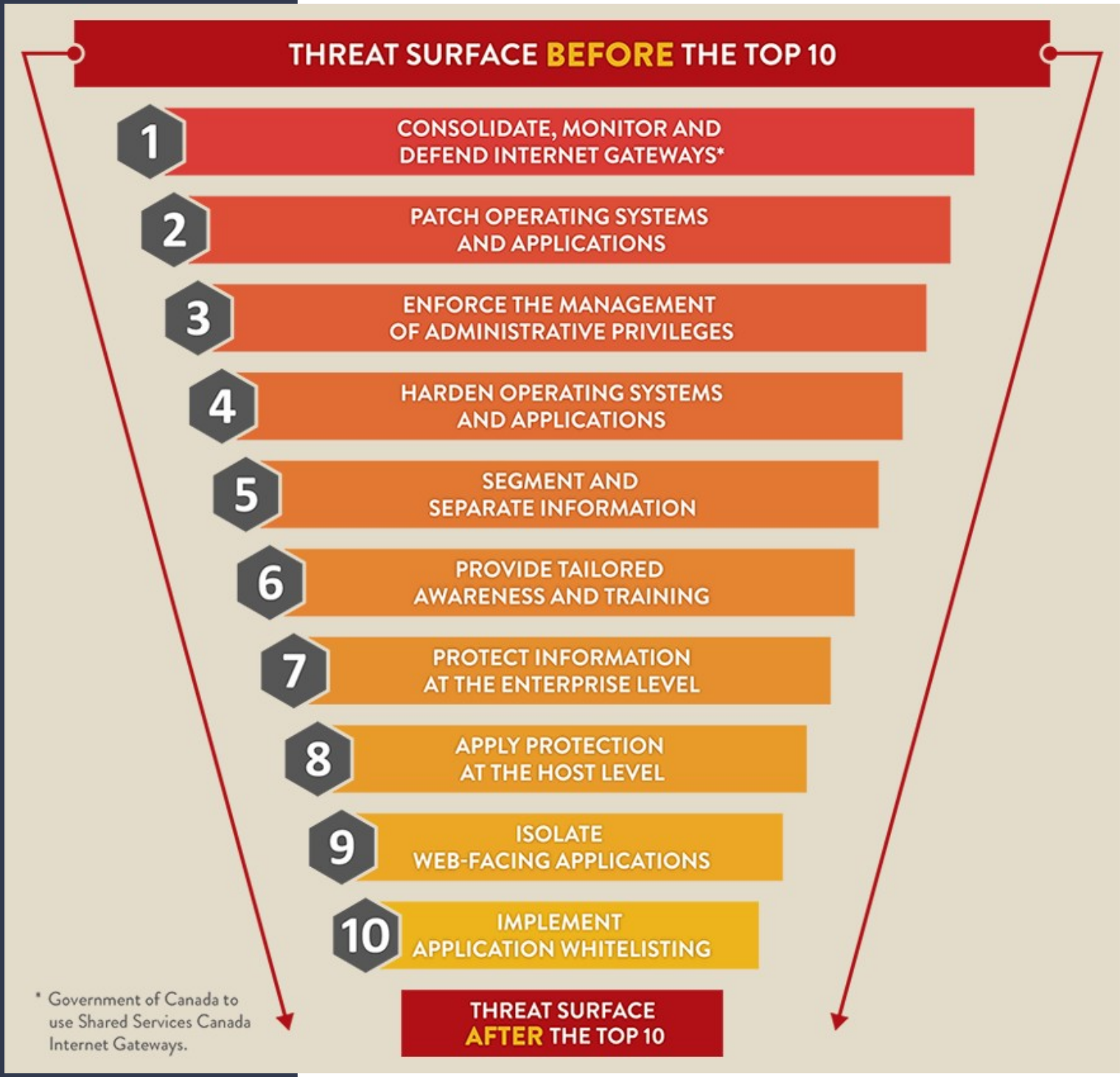
Security Engineer, Research and Automation, AWS

Job ID: 997198 | Amazon Web Services, Inc.

Bienvenido:
Hombre Orquesta

- Administradores Locales de GDE
- Impresoras
- Soporte al Usuario
- Soporte a Usuarios Especiales ;)
- Administrar Servidores
- Actualizar Equipos
- Reparar Equipos
- UPS
- Venderle a Usuarios Especiales que compre licencias, por ejemplo.
- Llevarle facturas y mates a Compras
- Que nos compren lo que realmente pedimos
- Documentar lo que hacemos
- Revisar Dasboards
- ¡Ah! Seguridad También...
- Etc ¡Uff!

Necesitamos una Metodología de Trabajo



https://cyber.gc.ca/en/guidance/top-10-it-security-actions-protect-internet-connected-networks-and-information-itsm10189

1° Consolidar, Monitorear y Defender Gateways

Controlar lo que sale y entra de tu red.

Fácil es decirlo: ¿Cómo lo hacemos?

1) Herramientas de Monitoreo (Gratuitas), veamos algunas.

2) Administrar nuestros Gateways.

- **Para eso Necesitamos un Router (veamos)**
- **Si no nos compran, una PC con Dos Placas de Red (veamos)**

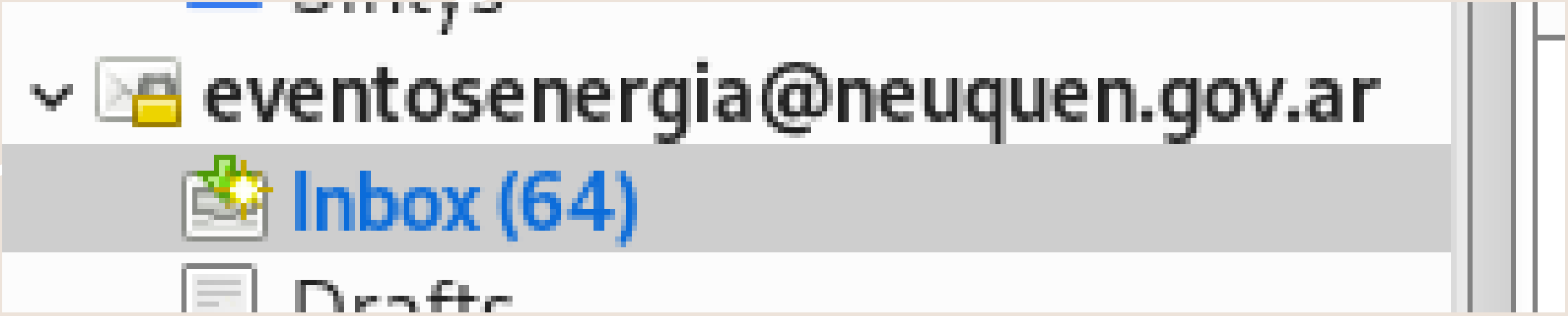
¡No todo Brilla en Babilonia!

1) Incrementamos Dispositivos.

- ¿Dónde están tus dispositivos?
- ¿Cuántos dispositivos tenemos?
- ¿Quién los administra?

2) Monitoreo y Logs

- ¿Quién los mira?



¡No todo Brilla en Babilonia - 1!

"When **alerts are more often false than true**, the on-call's sense of urgency in responding to alerts is diminished ... the simple burden of alerts **desensitizes the on-call to alerts**."

https://speakerdeck.com/caitiem20/tackling-alert-fatigue

2° Parchear y Actualizar OS y Aplicaciones

Tener Sistemas de Actualización

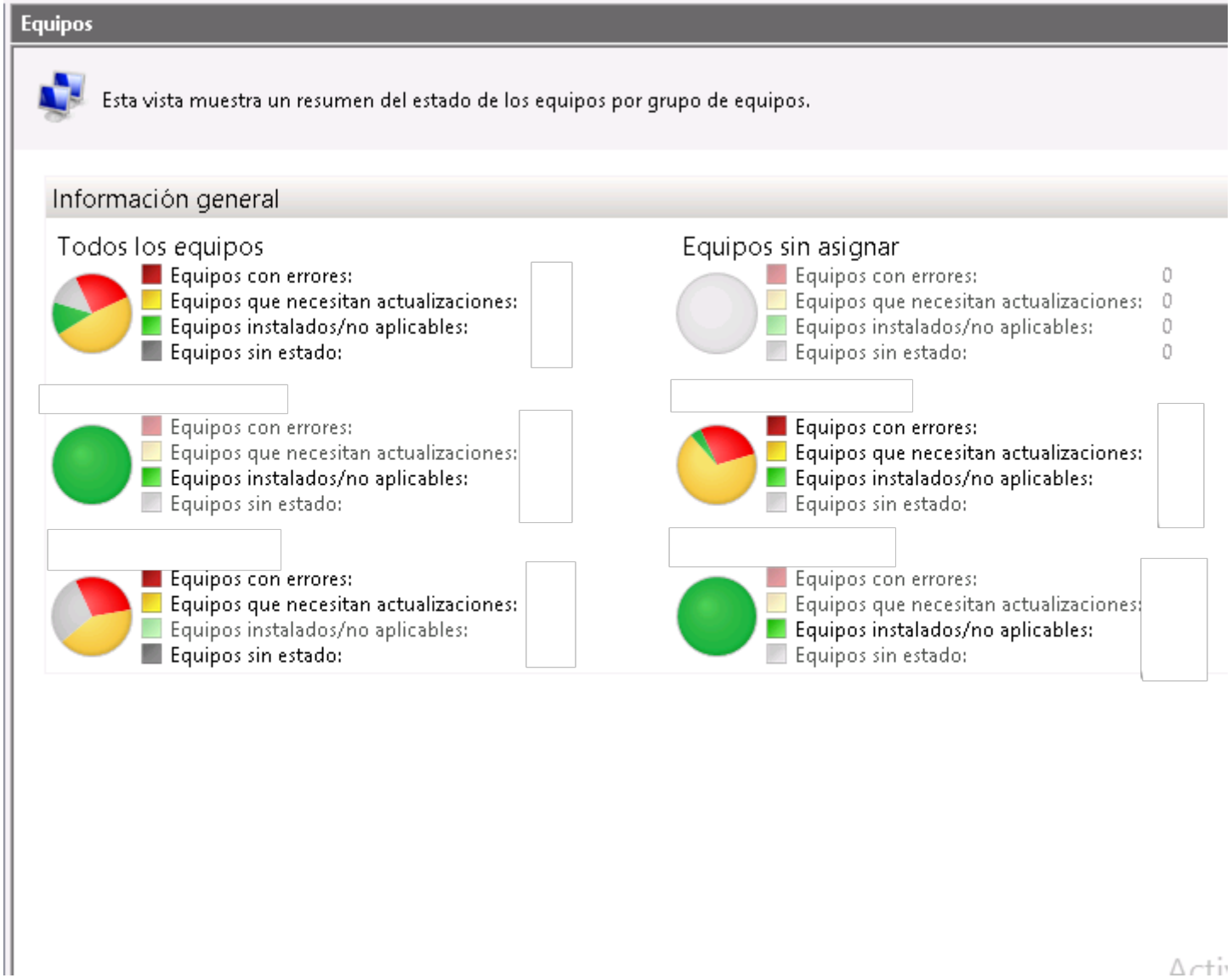
Fácil es decirlo: ¿Cómo lo hacemos?

1) WSUS - > OBLIGATORIO

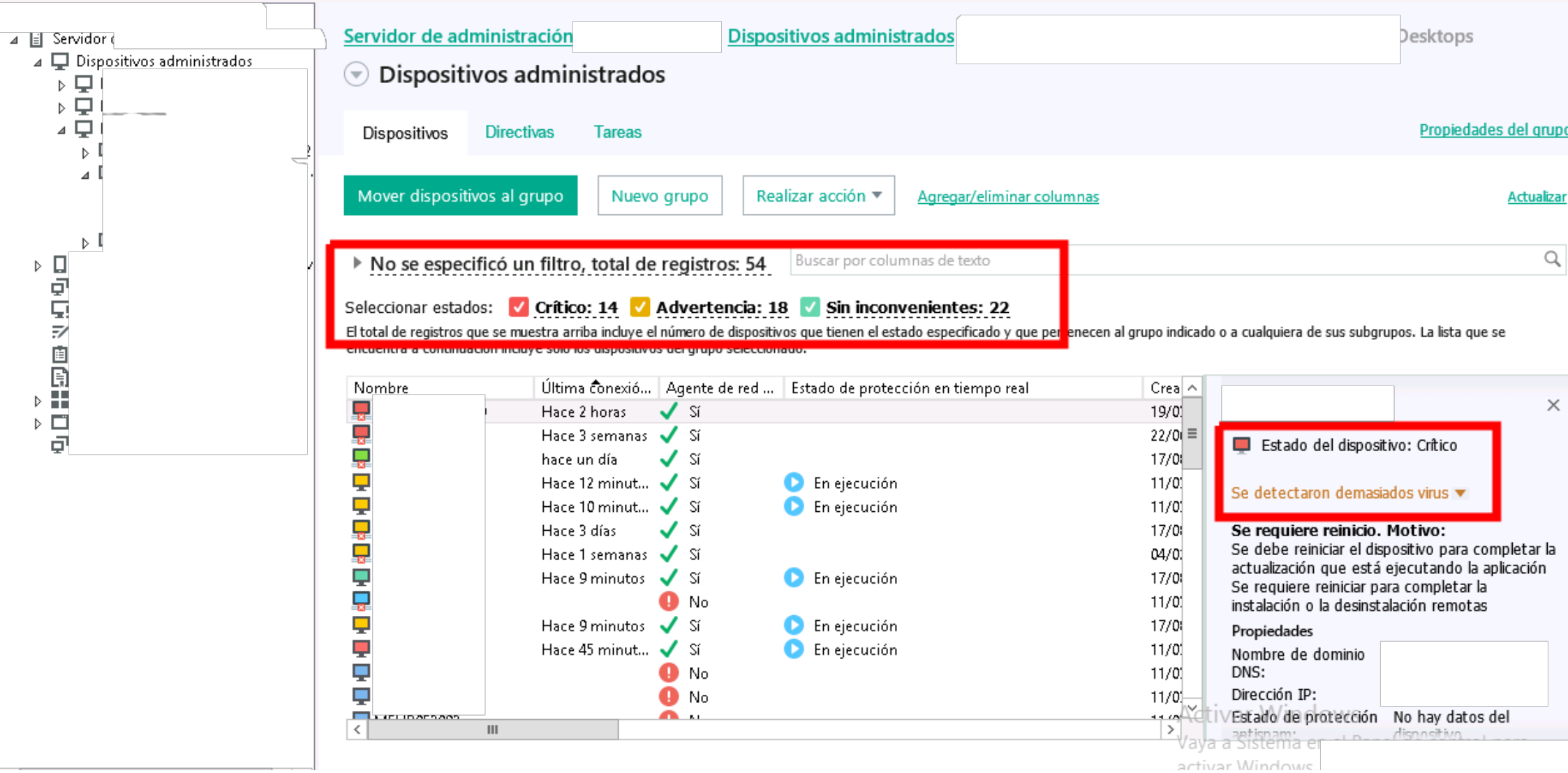
2) Herramientas de Terceros

- **Actualizar Mediante Endpoints**

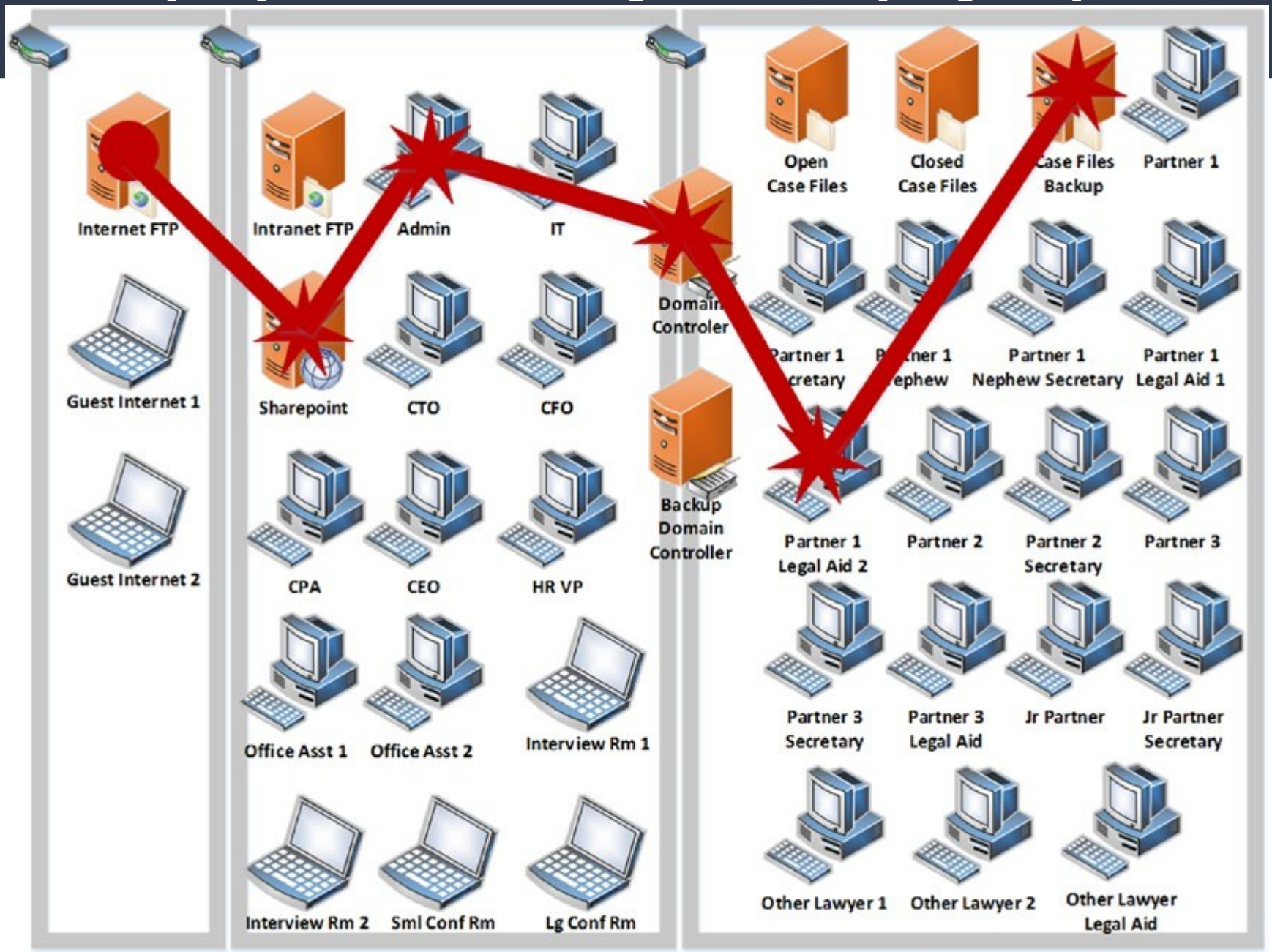
No todo Brilla en Babilonia - 3



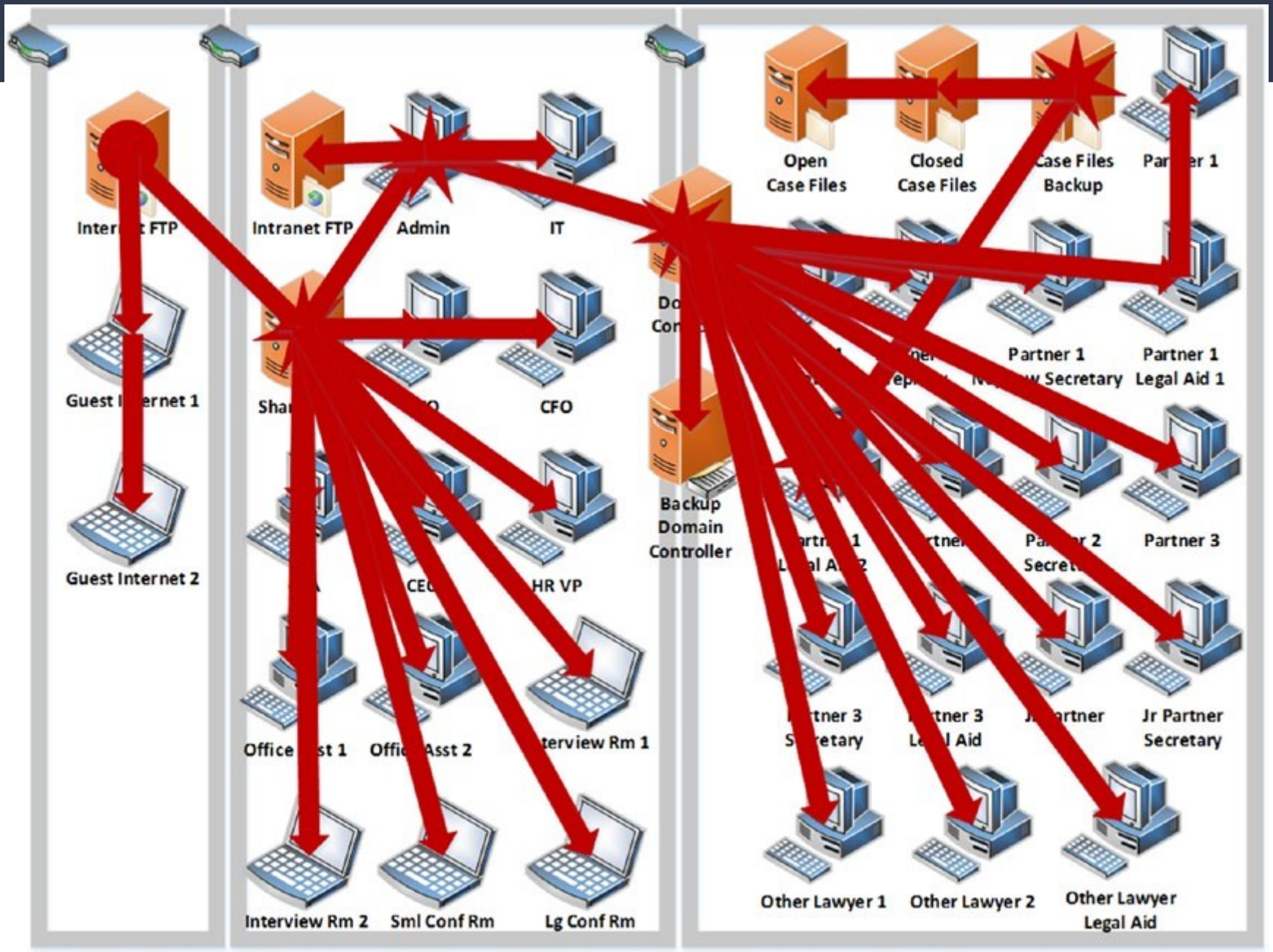
No todo Brilla en Babilonia - 4



Escalando Privilegios – Movimientos Laterales (Específico – Alguien lo paga...)



Escalando Privilegios – Movimientos Laterales (Como lo tenemos que pensar...)



Herramienta de Auditoría – 1

Buscar:

Death star domain admin

Herramienta de Auditoría - 2 ;)

Buscar:

Bloodhound
domain admin

Relax and drink wine…

Vas a ver muchas cosas que no te van a gustar…

Bienvenido Mitre Attack...

attack.mitre.org

MITRE | ATT&CK® Matrices Tactics Techniques Mitigations Groups Software Resources Blog Contribute

ATT&CK sub-techniques have now been released! Take a tour, read the blog post or release notes, or see the previous version of the site.

MITRE ATT&CK® is a globally-accessible knowledge base of adversary tactics and techniques based on real-world observations. The ATT&CK knowledge base is used as a foundation for the development of specific threat models and methodologies in the private sector, in government, and in the cybersecurity product and service community.

With the creation of ATT&CK, MITRE is fulfilling its mission to solve problems for a safer world — by bringing communities together to develop more effective cybersecurity. ATT&CK is open and available to any person or organization for use at no charge.

ATT&CK®

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Tweets by @MITREattack

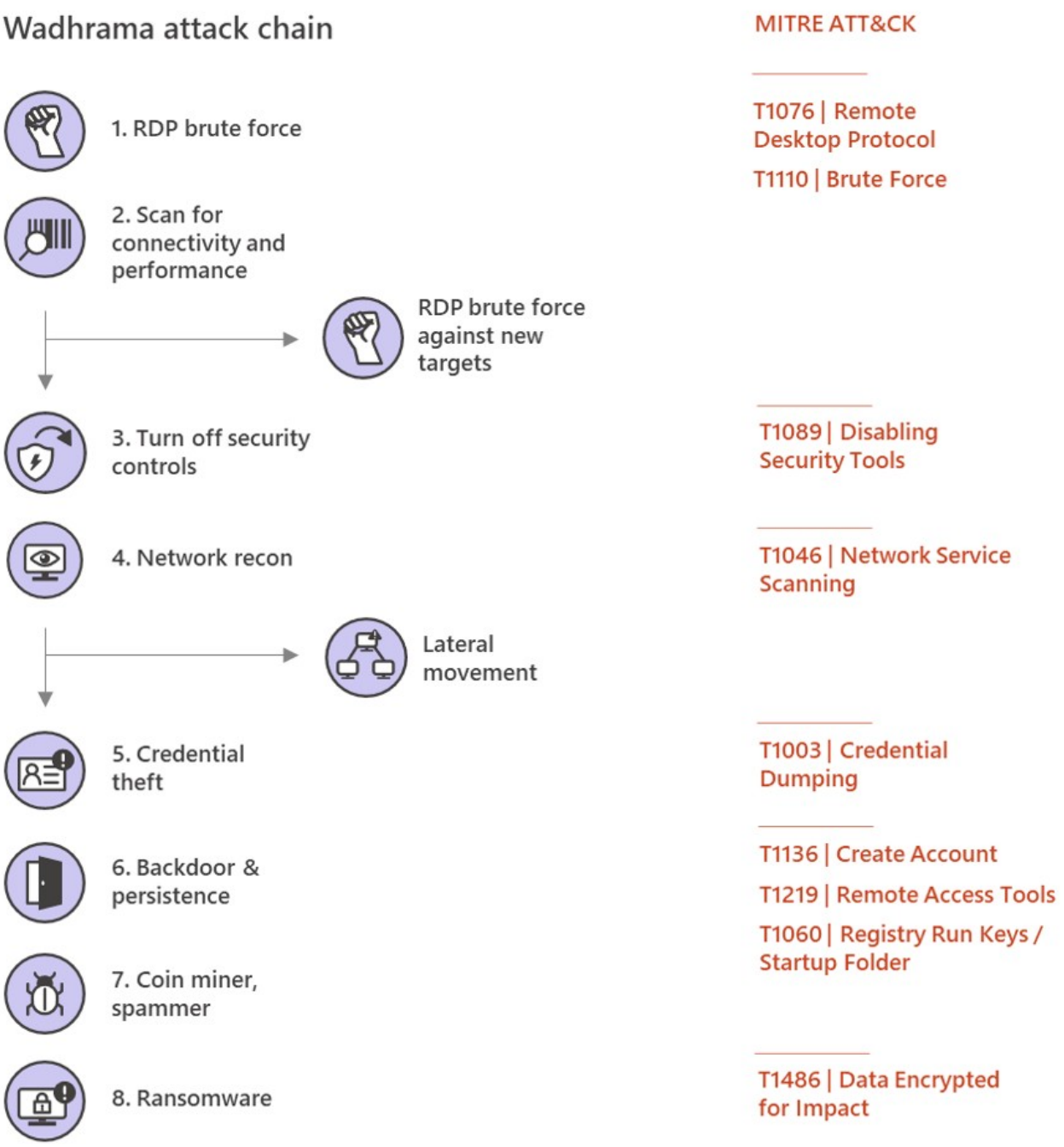
ATT&CK
@MITREattack

We've gotten a lot of questions about ATT&CKcon lately, and we're planing on doing something a bit different this fall. Stay tuned Monday for more details on ATT&CKcon Power Hour.

Embed View on Twitter

https://attack.mitre.org/

Mitre Attack…



Por donde se cuela el Malware – 1
(por todos lados)...

active processes. The attackers don't always install ransomware immediately; they have been observed installing coin miners and using *massmail.exe* to run spam campaigns, essentially using corporate networks as distributed computing infrastructure for profit. The group, however, eventually returns to the same machines after a few weeks to install ransomware.

https://www.microsoft.com/security/blog/2020/03/05/human-operated-ransomware-attacks-a-preventable-disaster/

Por donde se cuela el Malware
(por todos lados)...

Human-operated ransomware attacks

Common attack techniques

Initial entry through misconfigured or outdated web servers
- RDP brute force

Deployment through commodity malware infection
- Initial entry through Trickbot or Dridex

Finding and exploiting poor security controls
- Thorough reconnaissance to discover and leverage security weaknesses
- Extensive knowledge of system and network misconfigurations

Credential theft and escalation of privilege
- Credential dumping through tools like Mimikatz, ProcDump, or LaZagne
- Privilege escalation through Sticky Keys attack
- Theft of financial credentials and LSA secrets in registry
- Data exfiltration through RDP
- Creating new accounts then granting remote desktop privileges

Human-operated lateral movement
- Network recon through scanning tools
- Manual spread though PsExec and GPO

Disabling of security controls
- Stopping security services
- Clearing event logs

Defenses

Secure internet-facing assets
- Apply latest security updates
- Use threat and vulnerability management
- Perform regular audit; remove privileged credentials

Thoroughly investigate and remediate alerts
- Prioritize and treat commodity malware infections as potential full compromise

Include IT Pros in security discussions
- Ensure collaboration among SecOps, SecAdmins, and IT admins to configure servers and other endpoints securely

Build credential hygiene
- Use MFA or NLA, and use strong, randomized, just-in-time local admin passwords
- Apply principle of least-privilege

Monitor for adversarial activities
- Hunt for brute force attempts
- Monitor for cleanup of Event logs
- Analyze logon events

Harden infrastructure
- Use Windows Defender Firewall
- Enable tamper protection
- Enable cloud-delivered protection
- Turn on attack surface reduction rules and AMSI for Office VBA

TOP 16 - Vulnerabilidades Active Directory (seguimos contando...)

Top 16 Active Directory vulnerabilities

1. Users having rights to add computers to domain
2. AdminCount attribute set on common users
3. High number of users in privileged groups
4. Service accounts being members of Domain Admins
5. Excessive privileges allowing for shadow Domain Admins
6. Service accounts vulnerable to Kerberoasting
7. Users with non-expiring passwords
8. Users with password not required
9. Storing passwords using reversible encryption
10. Storing passwords using LM hashes
11. Service accounts vulnerable to AS-REP roasting
12. Weak domain password policy
13. Inactive domain accounts
14. Privileged users with password reset overdue
15. Users with a weak password
16. Credentials in SYSVOL and Group Policy Preferences (GPP)

https://www.infosecmatter.com/top-16-active-directory-vulnerabilities/

3° - Reforzar la Gestión de Privilegios Administrativos

Usuarios Especiales

Usuarios especiales: Quieren Privilegios de Admin

Desarrolladores: Quieren Privilegios de Admin

Usuarios Especiales

si ya se que esta seteada para todos los usuarios, pero me parece que nosotros informaticos no es necesaria la recomendacion, la quiero cambiar

Equipos de IT: Quieren Privilegios de Admin

¿Cuántos usan credenciales de Admin para entrar a sus DC u otros servidores?

No todo Brilla en Babilonia - 5

Te van a quedar pocos amigos...

No todo Brilla en Babilonia – 6

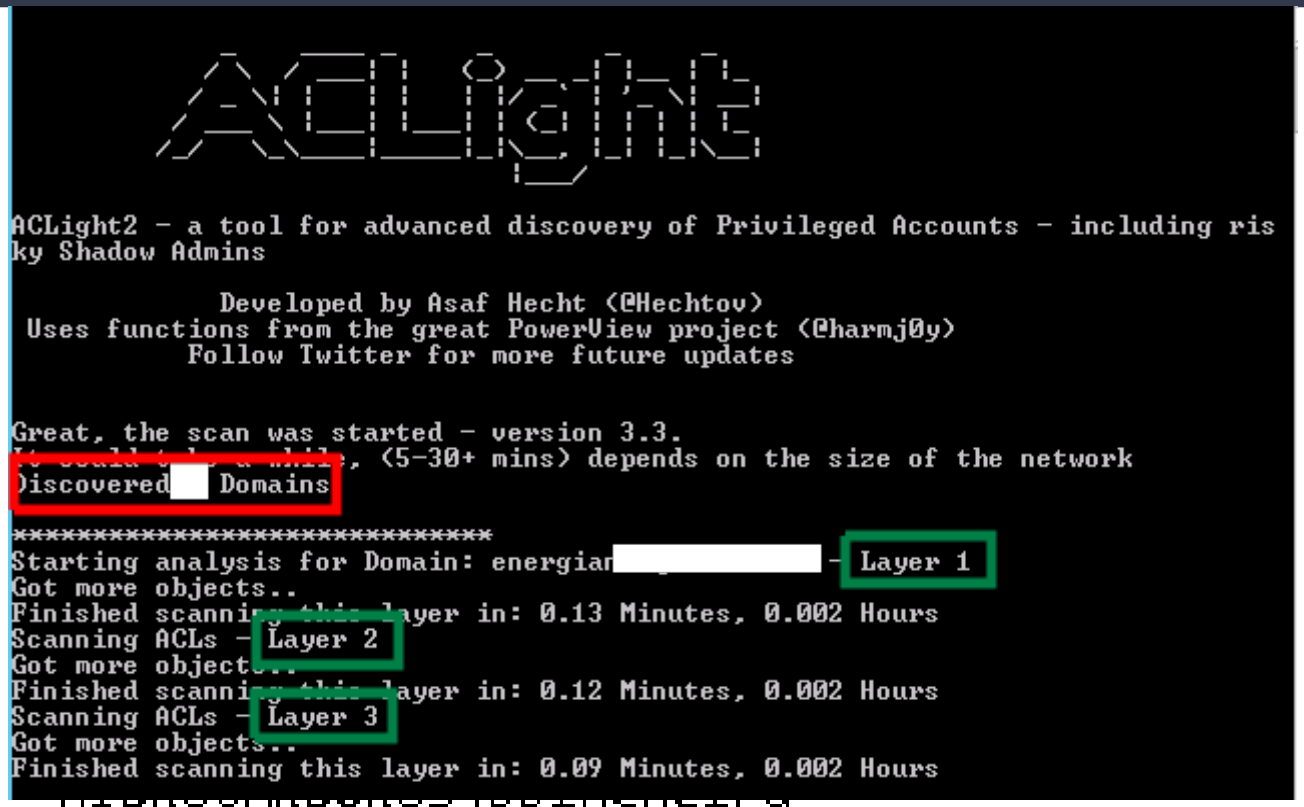
No viniste a hacer amigos…

Un poco
(muy poquito)

¿Consensuar?

Mucho

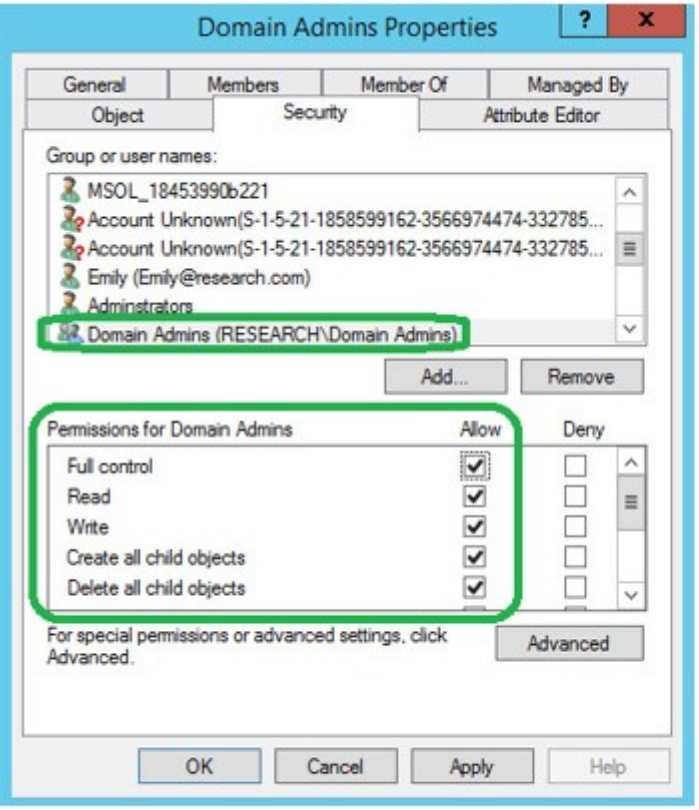
ACLight... Tu nuevo amigo...



From direct ACL assignment:

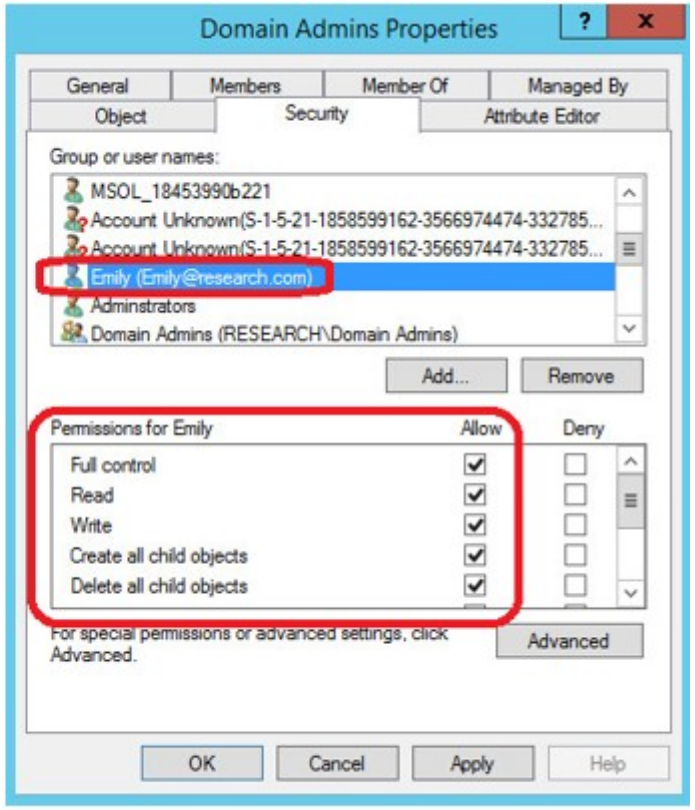
Currently Shadow Admins were not detected in the network

Shadow Admins

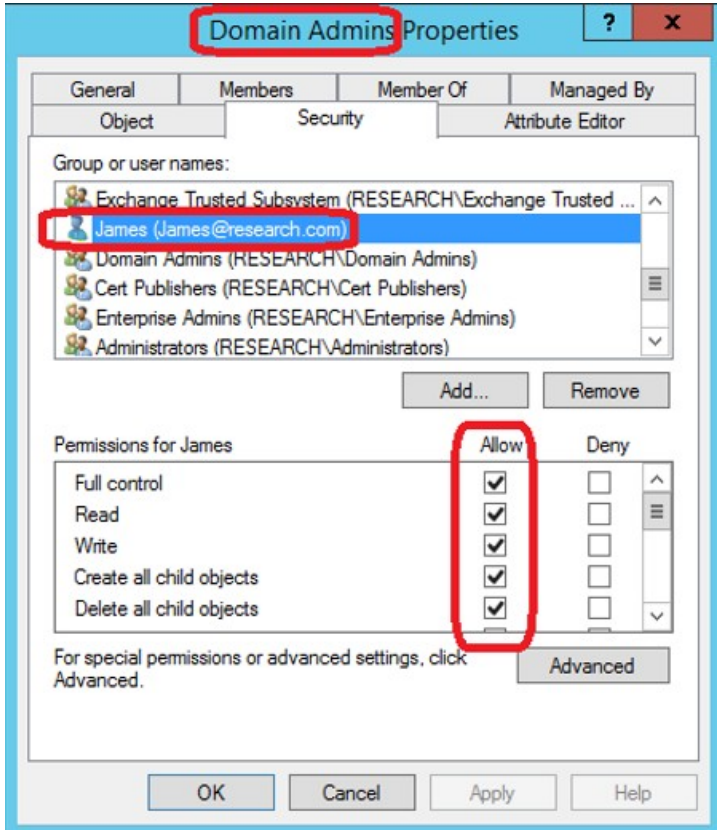


Group Assignment

VS

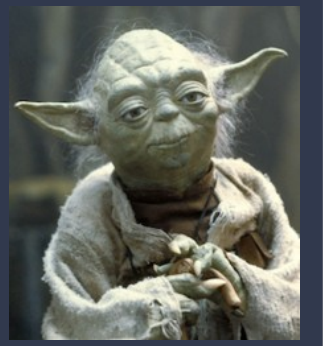


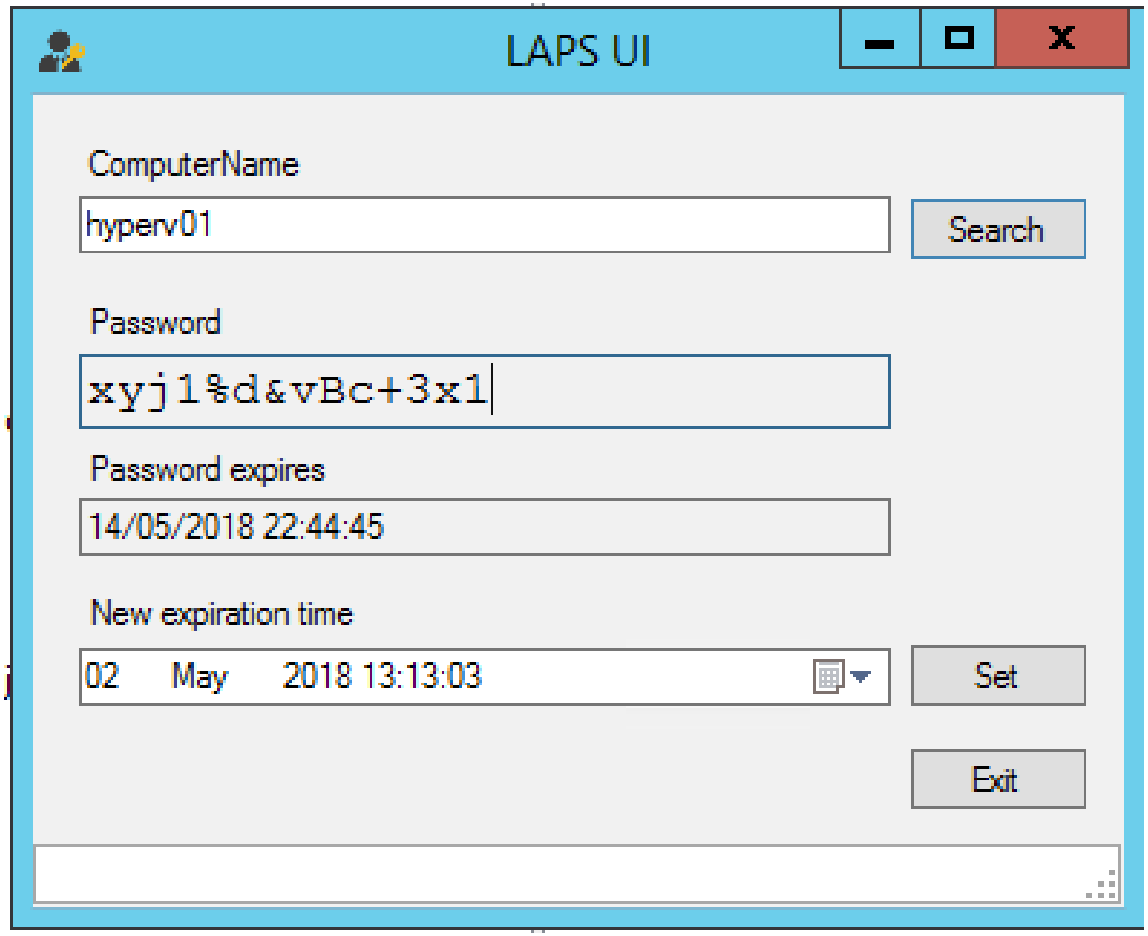
Direct Assignment



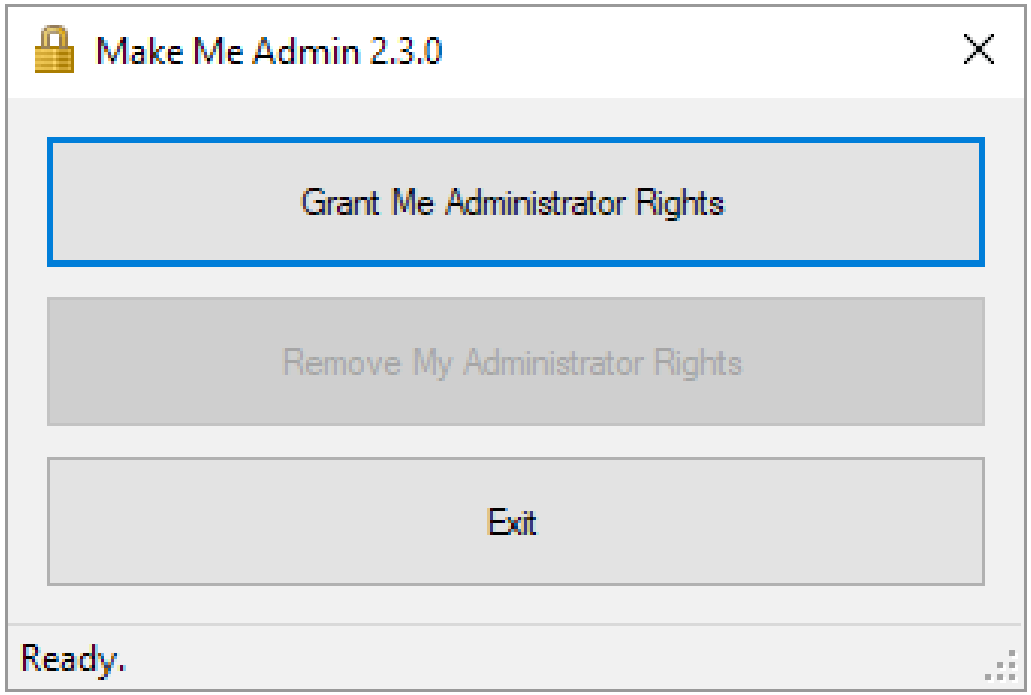
https://www.cyberark.com/resources/threat-research-blog/shadow-admins-the-stealthy-accounts-that-you-should-fear-the-most

Aplicarás LAPS





Make Me Admin

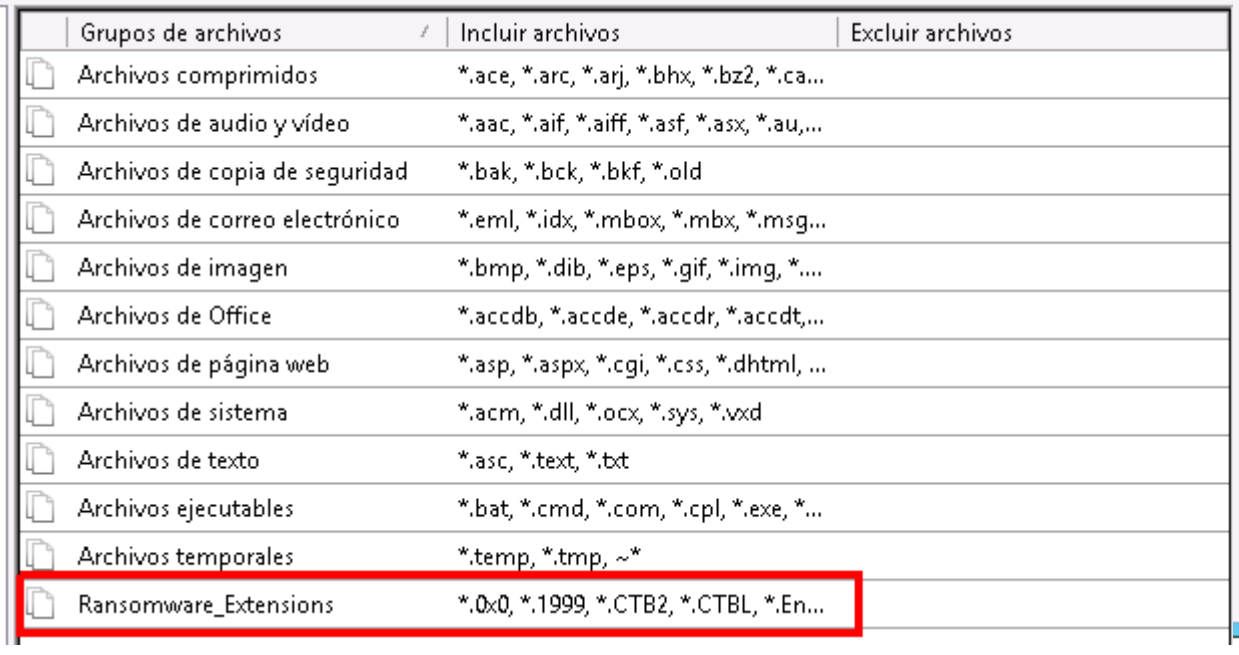


Para cortar tela...

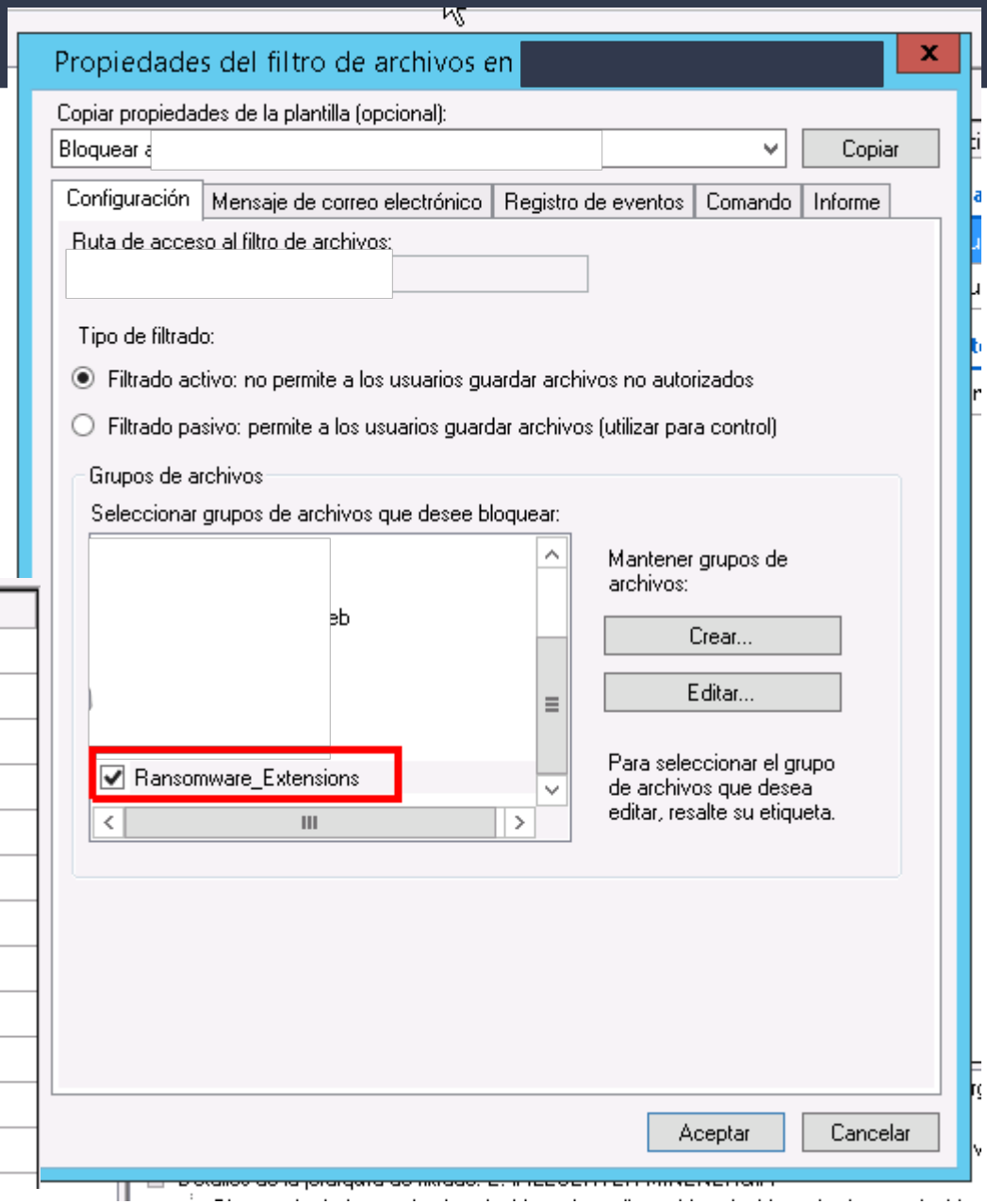
https://i.blackhat.com/us-18/Wed-August-8/us-18-Metcalf-From-Workstation-To-Domain-Admin-Why-Secure-Administration-Isnt-Secure.pdf

Hablemos del Fileserver

- **En discos diferentes.**
- **En Servidores diferentes a DC (de ser posible)**
- **FSRM (File Server Resource Manager)**



Grupos de archivos	Incluir archivos	Excluir archivos
Archivos comprimidos	*.ace, *.arc, *.arj, *.bhx, *.bz2, *.ca...	
Archivos de audio y vídeo	*.aac, *.aif, *.aiff, *.asf, *.asx, *.au,...	
Archivos de copia de seguridad	*.bak, *.bck, *.bkf, *.old	
Archivos de correo electrónico	*.eml, *.idx, *.mbox, *.mbx, *.msg...	
Archivos de imagen	*.bmp, *.dib, *.eps, *.gif, *.img, *....	
Archivos de Office	*.accdb, *.accde, *.accdr, *.accdt,...	
Archivos de página web	*.asp, *.aspx, *.cgi, *.css, *.dhtml, ...	
Archivos de sistema	*.acm, *.dll, *.ocx, *.sys, *.vxd	
Archivos de texto	*.asc, *.text, *.txt	
Archivos ejecutables	*.bat, *.cmd, *.com, *.cpl, *.exe, *...	
Archivos temporales	*.temp, *.tmp, ~*	
Ransomware_Extensions	*.0x0, *.1999, *.CTB2, *.CTBL, *.En...	



¡Grandes dosis de Antivirus!

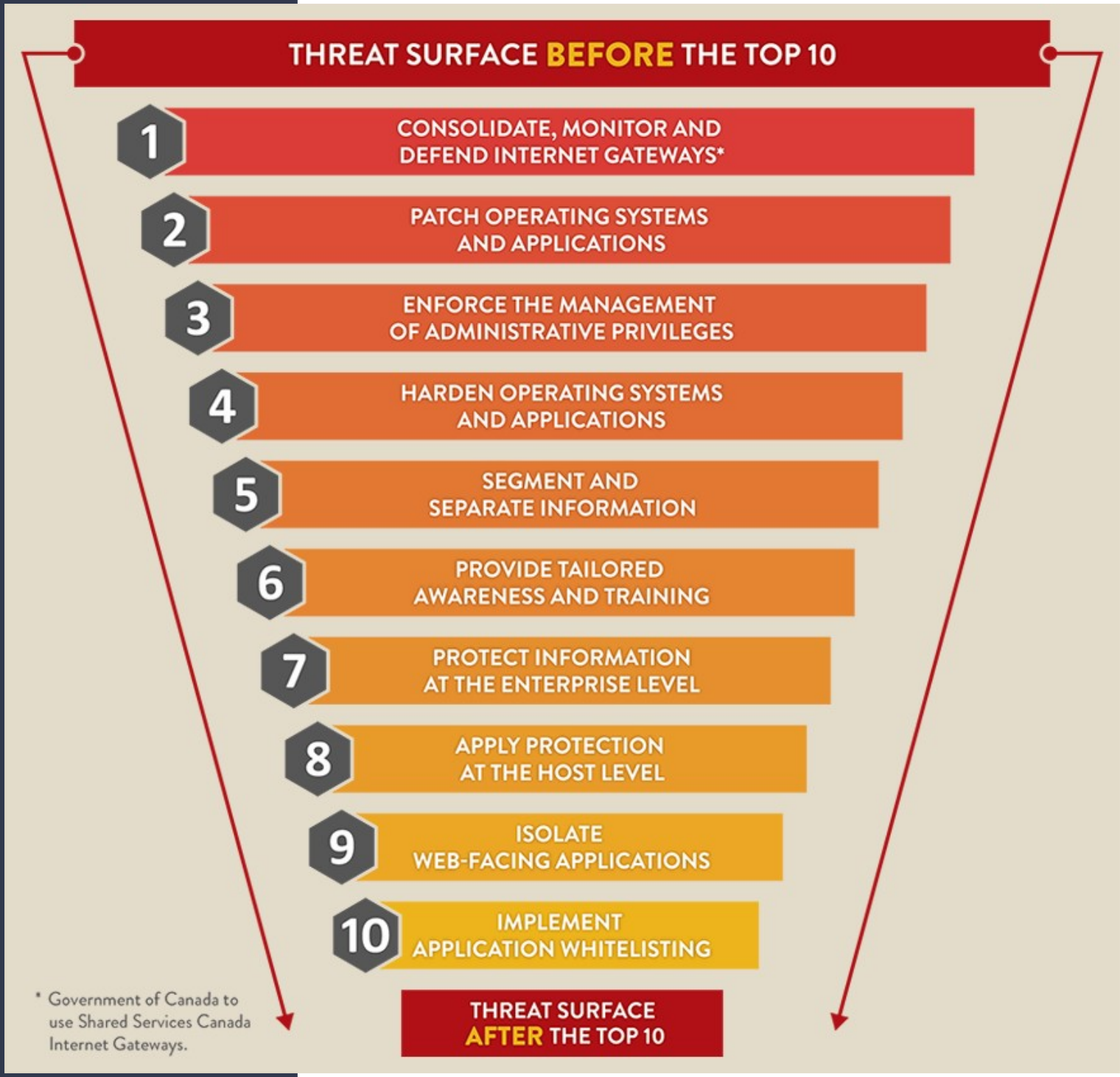
¿Cómo están tus backups?

el día D, en algún momento llega...

Cosas que callé

- MACROS (esos hdp…) Con suerte vas a poder quitarlos.
- SPF – DKIM
- GPOs (algunas son maliciosas…)
- Jump Boxes
- PingCastle
- LM – SMBv1 – NTLMv1 – Wdigest
- KRBTGT
- VLAN Rules – Rockstar
- Hardening Active Directory
- LSA Protection
- User Gropup Protection
- ASR – Attack Surface Reduction
- Etc...

Aplicala...



https://cyber.gc.ca/en/guidance/top-10-it-security-actions-protect-internet-connected-networks-and-information-itsm10189

¿A quién le toca hacer todo esto?

Adivinaste...

¡Gracias!

lucasg@neuquen.gov.ar